

STAFF REPORT

To: Finance Committee Date: February 8, 2011
From: Cathy Ball, Director of Public Works
Via: Lauren Bradley, Director of Administrative Services
Subject: Waste Stream Reduction Program

Summary: The purpose of this report is to update the Finance Committee on the results from the Waste Stream Reduction Pilot Program and to propose alternatives for implementing a variable-rate waste program in Asheville.

Background: In April 2007, Asheville City Council passed a resolution committing to reduce the municipal carbon footprint 80% by the year 2050. To lead this strategic effort, Asheville developed a Sustainability Management Plan that was adopted by City Council. Solid waste was included as a focus area in the plan, along with a series of programmatic recommendations to reduce waste generation in Asheville, including implementation of a “pay-as-you-throw” (PAYT) program. Subsequently, in its FY 2010-11 strategic plan, Council specifically identified the reduction of solid waste as a top priority.

PAYT programs, also called unit-based or variable-rate programs, provide a direct economic incentive for residents to reduce waste. Under variable-rate programs, households are charged for waste collection based on the amount of waste they throw away, in the same way that they are charged for electricity, gas, and other utilities. If they throw away less, they pay less.

As a first step in exploring the feasibility of a variable-rate waste program in Asheville, City Council approved in August 2010 a Waste Stream Reduction Pilot Program to assess the viability of implementing single stream recycling and PAYT. Staff also researched options for the program and provided a policy analysis paper to City Council (attached). In October 2010, the pilot began with the implementation of single stream recycling at 735 households in Park Avenue/The Views, Burton Street, Norwood Park and Parkway Forest neighborhoods. Each household was provided with a blue 95 gallon roll cart to put all of their unsorted recyclables.

The purpose of single stream collection is to make recycling more convenient for both residents and collectors by not requiring residents to separate recycled products. The pilot put these tenets to the test and evaluated the effectiveness and participation ease of single stream recycling as well as its impact on solid waste rates in the pilot areas.

The purpose of this report is to share the results of the pilot program and to make recommendations for implementing a variable-rate waste program in Asheville.

Pilot Results: Residents were surveyed at the end of the three-month pilot to determine their satisfaction with the single-stream recycling process and their preferences for implementing a variable-rate waste program. As of February 8, 2011, survey responses had been received from 216 of the 735 households that participated in the pilot. Over 90% of the surveyed respondents reported that they had a good or excellent experience

with single stream recycling and over 92% agreed or strongly agreed that single stream recycling was more convenient than sorting recyclables with bins.

Residents were also polled on their preferences for a variable-rate waste program. Forty-three percent of respondents felt that the fairest way to provide service was to charge households different fees based on the size of their garbage roll cart and provide single stream recycling for no charge. In essence, a resident could reduce their total fee by recycling more and generating less trash.

Data collected throughout the pilot also supported the effectiveness of single stream recycling. Participation rates increased by 7%, and the amount of recyclables collected increased by 6.31 lbs. per household during the pilot. This increase is equivalent to \$105,252 in avoided annual disposal fees, or an 8% decrease in the overall solid waste disposal rate.

In terms of willingness to pay for sanitation services, the survey results indicated the following:

- 55% of survey respondents were willing to pay \$11.00 or more per month for a 95 gallon garbage roll cart with a free 95 gallon cart for recycling.
- 64.8% of survey respondents were willing to pay \$7.00 or more per month for a 65 gallon garbage roll cart with a free 95 gallon cart for recycling.

In conclusion, the single stream recycling initiative increased recycling participation and volume while decreasing solid waste volume going to the landfill. Participants in the pilot were also willing to consider paying for solid waste services based on the amount they throw away.

Variable Rate Waste Program: Based on the goals in the city's Sustainability Master Plan along with the survey results from the pilot program, staff is recommending proceeding with the implementation of a variable-rate waste program for Asheville residents. This program would change both the way in which solid waste is collected and how solid waste services are funded.

Currently, households receive a 95-gallon cart for solid waste disposal and two smaller bins (12- and 16-gallon) for recyclable materials. All households pay a flat rate of \$2.95 per month for recycling services. The recycling fee covers approximately 30% of the costs associated with solid waste services. The remainder of costs for the solid waste program, approximately 70% or \$3.6 million, is funded by the General Fund.

Like Asheville, most cities charge residents a fixed monthly price for waste haulage service, either as a separate fee or as a property tax component. However, neither choice harnesses an incentive to reduce waste. Rather than charging all households a flat fee for trash disposal, households with more trash would pay more than those with less trash. In this model, trash disposal is based on a rate associated with consumption.

Under a variable-rate waste program, residents would be provided with one roll cart for single stream recycling and a choice in the size of their roll cart for trash, a 95-gallon cart or a 65-gallon cart. The cost of the roll cart for trash would be based on size of the roll cart. Residents would also have the option to buy pre-paid stickers for the disposal of extra trash, bulky items, appliances and other waste materials that will not fit into their trash roll cart.

With this approach, staff would recommend the following fee structure:

65 gallon roll cart for garbage	\$ 7.00 per month per garbage cart
95 gallon roll cart for garbage	\$11.00 per month per garbage cart
Additional garbage bag	\$ 2.00 per sticker
Bulky items	\$10.00 per sticker
Appliances	\$ 5.00 per sticker

Under this approach, solid waste services would be 50% funded by fees and 50% funded by the General Fund, with approximately \$2.9 million coming from each source of revenue.

If approved, staff would need six months before full implementation could take place. During those six months, the city would procure bins and all necessary equipment, finalize changes to the existing recycling contract and implement a community education initiative.

Pros:

- Reduction of land filled solid waste
- Increased awareness of recycled material for residents
- Supports Council's sustainability goals
- Reduced General Fund commitment for sanitation services

Cons:

- Cost per month per household will increase if the variable-rate, single stream program is implemented citywide; however, fees could be reconsidered if landfill costs decrease as a result of the program.

Green and sustainable: Asheville will be the southeastern leader in clean energy and environmental sustainability by expanding community education programs and implementing ways to reduce city-wide solid waste.

Financial Impact: The incremental cost for the Waste Stream Reduction Program is approximately \$950,000, bringing the total cost for all solid waste services to about \$5.2 million. Staff recommends structuring a variable-rate waste program that is 50% supported by fees and 50% supported by the General Fund.

Recommendations: City staff recommends that the Finance Committee and the City Council approve the Waste Stream Reduction Program for full implementation throughout the city and approve the associated fees and charges for the program for implementation in FY 11-12. The fees and charges for this program would move forward with the FY 11-12 budget process. It is anticipated that Council will consider the full fees and charges proposal for FY 11-12 on March 22, 2011.

Attachment:

- (1) Survey Results
- (2) Waste Stream Reduction Pilot Program analysis paper

City of Asheville

Waste Reduction Pilot Program



Introduction

Since 2007, Asheville City Council has made a sustainable Asheville a top priority. In the 2010-11 strategic plan, Council specifically identifies the reduction of solid waste as a top priority. Sustainable communities are often identified as those that balance social, environmental and economic needs. Local governments are now evaluating ways to affect positive change in core service areas while fostering sustainable economic models.

This report focuses on an innovative new program that addresses the social, environmental and economic aspects of waste management. As outlined in this report, waste management reduction programs positively impact what is often referred to as the triple bottom line – People, Planet, and Profit.

An Environmental Approach: Reward Recyclers

U.S. cities are starting to ask: What would happen if we charged for garbage collection in the same way we charge for water and other utilities? Should conscientious recyclers be rewarded for efforts to save valuable resources (just as they are for conserving water and electricity)? Is it fair to charge the same rate to households that recycle as it is for households that throw everything away?

Over 7,000 U.S. cities used these questions to develop self-determining waste reduction plans. As an environmental leader, the city of Asheville is proposing a new endeavor that gives its residents greater choice and control in the management of waste while providing an opportunity to create positive change.

How does it work?

Once a quantity is defined, (for example, a typical 65-gallon trash can) each waste removal service costs the same. Throwing out two cans per week costs twice as much as throwing out one can. Thus, residents who toss out more garbage, pay more for

removal. If a household recycles more and decreases the number of cans used, their bill will decrease. This creates a financial incentive for households and rewards those who reduce waste and recycle – the less you throw out, the less you pay.

Providing opportunities for people to do something with their trash other than throwing it out is key to this approach. One useful waste reduction program involves waste reduction education and expansion of curbside collection services.

The Top Ten Reasons to Recycle

1. Good for our Economy
2. Creates Jobs
3. Reduces Waste
4. Good for the Environment
5. Saves Energy
6. Preserves Landfill Space
7. Prevents Global Warming
8. Reduces Water Pollution
9. Protects Wildlife
10. Creates New Demand

**Cited: National Recycling Coalition*



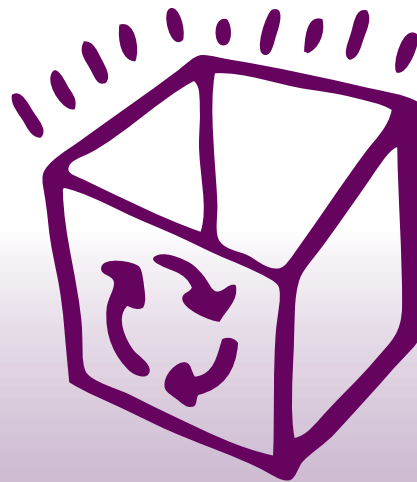
Why Incentivize Recycling

Landfills are a pressing issue in many communities: they are finite, filling up, and unlikely to expand much to accommodate the seemingly ever-increasing volume of trash being generated.

Applying market principles to waste management could reduce the volume of trash generated and is proving to be an innovative and effective approach to waste management. According to the Environmental Protection Agency (EPA), such programs provide a direct economic incentive for residents to reduce waste. This approach benefits the environment by shifting the incentive to recycling or composting. Most cities charge residents a fixed monthly price for waste haulage service, either as a separate fee or as a property tax component. Neither choice harnesses an incentive to reduce waste. Rather than charging all households a flat fee for trash disposal, households with more trash would pay more than those with less trash. In this model, trash disposal is based on a rate associated with consumption, much like electricity, gas and other utilities.

Because residents do not pay per unit of weight, number of bags, or any other quantitative measure, it is likely they are more indiscriminate in what (and how much) they discard. Today, thousands of cities have changed their approach to charging for waste removal and offer free recycling services. The results have been successfully striking. A recent Reason Public Policy Institute study concluded “pay-as-you-throw” or variable-rate waste programs resulted in 17 to 23% less garbage (by weight) and greatly increased participation in recycling programs. Like Asheville, these communities already had successful recycling programs in place. Source reduction diminished solid waste management costs, reduced landfill costs, and improved the environment by reducing the volume of solid waste. In addition, diverting waste helped mitigate greenhouse gas emissions. According to the EPA, landfills are the largest source of methane, a greenhouse gas that is at least 23 times as potent as carbon dioxide and harmful to one’s health.

Today, there are over 7,000 variable-rate waste programs operating in the U.S. They come in all shapes and sizes, with numerous implementation methods, an array of program pricing options, different ways to measure the waste and different ways to share benefits within the community.



Why People Criticize Recycling:

Inconvenience:

Inconvenience is one of the top reasons people don’t recycle.

Lack of Knowledge:

There is lack of knowledge on how to properly recycle (i.e. what products can be recycled).

Misperception:

The perception that trash pick-up is one of the only “free” services provided by one’s city.

Asheville's Pilot Study

Across the United States, numerous cities have implemented successful programs. Some cities noted for extreme success include: Chicago, IL; San Jose, CA; Dover, NH; Gainesville, FL; Boulder, CO; Fort Collins, CO; Middletown, RI; Wake County, NC; and Wilmington, NC.

To date, the City of Asheville has been quite successful with recycling participation (80% of Asheville citizens are currently recycling). Asheville has provided curbside recycling services since 1997 and continues to enhance services. Last year alone the curbside recycling program diverted 7,436 tons of recycling from landfills (a 24% diversion rate).

As the City's population continues to grow and recycling efforts increase, Asheville is in need of updates to handle the future program growth and increased recycling volumes.

A Pilot Study will include 572 households to test the waste stream reduction program's effectiveness and participation ease. The three-month pilot will implement single stream recycling collection beginning October 1, 2010. The areas of Norwood Park, Park Avenue/The Views and Burton Street have been identified as participants at no cost to the residents. The plan allows for single streaming, which makes it more convenient for both residents and collectors by not requiring residents to separate recycled products. The collection schedule will not change, maintaining weekly trash removal and bi-weekly recycling pick-up. Different bin sizes will be offered for trash. In the implementation of a full-scale model the cost of the garbage bin will be based on size. During the pilot, the potential for total cost recovery and/or partial cost recovery will be assessed. For example, residents may have a slight increase per collection bill, but will realize a decrease in multiple unseen external costs. An in-

direct savings for taxpayers is anticipated, as well as potential job creation, decreased tipping fees, and a healthier environment for Asheville residents.

The City of Asheville and the contracted Curbside Management, Inc. will provide recycled and solid waste measurements before and after the study, allowing for a quantitative comparison and formal recommendations.

Asheville strives to achieve the following:

GOAL ► Set and develop a plan for implementing a community energy reduction goal.

- Work with regional partners to create incentives for green building, energy conservation and energy independence.
- Expand community education programs including climate awareness, water conservation, recycling, storm water, and sustainability.
- Integrate and implement a multi-modal transportation plan including sidewalks, bike paths, signal preemption, transit, greenways, and other system improvements resulting in a funding priority list.

GOAL ► Take the City of Asheville's sustainability program to the next level.

- Identify strategies and costs for increasing the city's annual energy reduction goal to four percent.
- Implement ways to reduce city-wide solid waste.

3
months

572
households

10.1.10
pilot begins



The new program addresses multiple objectives aiming to conserve and improve our environment for future generations. Specifically, the program strives to reduce trash in our landfills, improve waste stream reduction, and promote the triple bottom line - People, Planet, and Profit. Asheville has the opportunity to become a leader in today's green movement and begin building a legacy for future generations.

For residents to participate, the program must:

- ▶ Be easy to understand
- ▶ Be convenient and user-friendly
- ▶ Explain the program's inherent fairness
- ▶ Continuously reinforce the right behaviors
- ▶ Use high-quality materials

For city leaders to gauge success, the program must:

- ▶ Be effectively and efficiently implemented
- ▶ Be straightforward to manage
- ▶ Provide immediate and measurable results
- ▶ Remain financially viable over the long-term
- ▶ Support the community's environmental and economical goals and/or objectives

Next Steps & Potential Phases

Implementation of a successful waste stream reduction plan will increase the city's role as a state leader in sanitation and recycling. It will also provide an opportunity to expand recycling through a market-based incentive program. Implementation of this program will lead to:

- ▶ Environmental progress
- ▶ Fulfillment of Asheville's vision and plan
- ▶ Potential funding for downtown recycling
- ▶ A composting pilot study
- ▶ Potential new recycling drop-off areas
- ▶ Additional recycling options for multifamily properties
- ▶ The City of Asheville's delivery on its environmental goals

In conclusion, embarking on a new enterprise in the way of recycling is an important next step for Asheville. A variable-rate waste program allows conscientious recyclers to be rewarded for their efforts to save valuable resources and supports Asheville's goal of being the southeastern leader in clean energy and environmental sustainability.



Triple Bottom Line:

People. Planet. Profit.